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**From:** Luchtman, Fredrick R RDML USN DCNO N9 (US)  
**Sent:** Friday, May 3, 2019 3:36 PM  
**To:** Richardson, John M ADM USN CNO (USA); Moran, William F ADM USN VCNO (US); Grady, Christopher W ADM USN USSFC (USA); Aquilino, John C ADM USN COMPACFLT PEARL HI (USA)  
**Cc:** Miller, DeWolfe H VADM USN COMNAVAIRPAC SAN CA (USA); Rudder, Steven BGen AVN, AVN; Peters, G Dean VADM USN COMNAVAIRSYSCOM PAX (USA); Lindsey, Bruce H VADM USN USSFC (US); Kelley, Roy J RADM USN COMNAVAIRLANT NOR VA (USA); Lescher, William K VADM USN DCNO N8 (USA); Conn, Scott D RADM USN (USA); Gillingham, Bruce L RADM USN BUMED FCH VA (USA); Loeblein, James T RADM USN OLA WASHINGTON DC (USA); Leavitt, Mark L RADM USN COMNAVSAFECEN NOR VA (USA); Marotta, Thomas W RADM USN DCNO N3N5 (USA); Gahagan, Shane G RDML USN PEOTACAIR PAX MD (USA); Harris, Gregory Norton RDML USN CNATRA CCI TX (USA); Horan, Dale E RDML OPNAV, N98; Sobeck, Philip Edward RDML USN (USA); VAUGHAN, Edward L Brig Gen USAF AF-A3 (US); (b) (6)  
**Subject:** PE Monthly 3 May 2019  
**Attachments:** PE LOEs Metrics APR2019.pptx  
**Signed By:** (b) (6)

CNO, Admirals,

PEAT monthly update follows, no assistance required.

BLUF, PEAT had a good visit with FDNF-J aviators, a new program to standardize gear fit is underway, two scientific studies are helping us understand the human side of Physiological Episodes, and I conducted an interview with USNI reporter Megan Eckstein.

The team conducted a roadshow with CVW-5/MAG-12 in Japan last week. During my visit, I met with resident leadership, aircrew, flight surgeons, and aerospace physiologists to discuss the current state of PEs in the NAE. FA-18 System SMEs met with all Iwakuni-based TACAIR squadrons for maintenance and administrative deep-dives to discuss best practices as well as PE prevention and data collection. Additionally, I met with the medical leadership at MCAS Iwakuni to discuss medical care of PE aviators and to identify solutions to any gaps/deficiencies in their processes.

RCCA identified TACAIR gear fit training as an area requiring improvement. Despite the unique training required to fit and maintain the TACAIR flight gear ensemble a standardized training syllabus does not exist (it is currently conducted via OJT at the squadron level). We are working with AIRLANT and COMSTRIKWINGLANT to conduct a gear fit training pilot program at NAS Oceana. The goal is to ensure PRs and aircrew have sufficient training on all aspects of the TACAIR flight gear ensemble as well as reduce gaps in the man-machine interface. Data from the pilot program will be used to standardize TACAIR gear fit training throughout the fleet. Long term, we have engaged with RRL SMEs to ensure this training deficiency is addressed via RRL.

Navy Experimental Dive Unit (NEDU) released the technical report from its study into the physiological effects of rapid sub-atmospheric pressure changes using the Fluctuating Altitude Simulation Trainer (FAST) chamber. The study found no evidence of decompression sickness, cognitive impairment, or any PE symptoms in any of its subjects. The importance of these negative findings is that pressure fluctuations, up to a rate of 0.8 psi/sec, in isolation may not be causing DCS or PEs. NEDU is working with PMA-265 to develop follow-on studies using the FAST chamber.

Naval Medical Research Unit – Dayton (NAMRU-D) is recruiting fleet aviators for a study to evaluate potential causes of physiologic episodes in high performance aviation. The study will include aircrew flight equipment (AFE) fit and usage evaluation, altitude chamber sessions, centrifuge sessions and flight simulator performance task evaluations. The gear fit training and the NAMRU-D study provide the added benefit of involving the Fleet in our efforts to better understand and reduce PEs.

Per the attached slide deck, NATOPS Cabin Pressure Events continue to trend in the right direction overall due to increased attention on system maintenance informed by Slamstick data analysis. We anticipate greater improvement when we begin installation of the redesigned primary bleed air regulator valve (PBAR) and add-heat valve later this year.

Finally, I had the opportunity to sit down with Ms. Megan Eckstein, USNI, to discuss our work. Link to article: <https://news.usni.org/2019/05/02/navy-taking-major-steps-to-prevent-future-physiological-episodes-in-jets>

Very respectfully,  
Lucky  
RDML F.R. Luchtman, USN  
Physiological Episodes Action Team  
Office: (703) 604-5392  
Cell: (b) (6)